

Appl. No. 10/032,235  
Amdt. Dated Nov. 9, 2005  
Reply to Office Action of 9/19/2005

### REMARKS

Claims 1-20 and 22 are currently pending. Claims 9-20 are allowed; claims 1-8 are rejected; and claims 9-11 are objected to but would be allowed upon an allowable base claim.

Applicant thanks the Office for accepting the drawings filed Dec. 21, 2001 and for acknowledging the Information Disclosure Statement.

Applicant wishes to thank the Office the thorough office action and allowance of the claims 9-20 and the further allowable subject matter in claims 9-11. The arguments and amendments herein should place all claims in condition for allowance.

#### Claims Rejections - 35 USC §102(b)

Claims 1, 2, 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (U.S. Pat. No. 5,428,610). A rejection based on anticipation requires that a single reference teach every element of the claim (MPEP § 2131). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Or stated in another way, a "claim is anticipated only if each and every element as set forth in the claim is found, . . . described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Office alleges that Davis discloses a hybrid FM radio system and references Davis Figure 3A in support thereof. However, as detailed herein, Davis is solely directed to a "wide area communications for both voice and data signals." (Davis Col 5, lines 37-38) Davis references a co-pending "Communications Systems" patent application serial no. 07/737,407 which apparently "discloses a basic system structured for the transmission of audio information." This application does not appear to have been published or granted.

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However, the Davis patent clearly describes that the FM-SCA (Subsidiary Communications Authority) output to be wide area communications of data signals riding on the FM transmission. In more particular detail, Davis describes "a wide band FM-SCA transmission system adapted to transmit audio and/or data information efficiently and cost effectively to mobile receivers." (Davis Col 4, lines 8-11)

As per Claim 1 of the present application (as amended), Davis does not describe a hybrid radio system that transmits the same audio signal in both analog and digital modes, receiving and processing both the analog and digital inputs to generate a standard analog FM output and a digital decoded analog FM output, and a mechanism to automatically switch between the digital decoded analog FM output and the standard analog FM output in order to provide the audio output. In addition, Davis does not disclose or suggest having the digital decoded analog FM output and the standard analog FM output being synchronized.

A cursory review of Davis Figure 1 seemingly shows the FM receiver outputting FM-SCA data (36), FM-SCA audio (34) and regular FM audio (32). However in more particular detail, Davis Figure 3A shows that the receiver (26C) processes the FM audio (111) distinct from the FM-SCA data (36) and the FM-SCA audio (116). The corresponding description clearly indicates that the FM-SCA audio is distinct and unrelated to the FM audio and that the transmitted data signals and the audio signals are not the equivalent audio signal being transmitted as both in both an analog and digital format.

"The demodulated FM-SCA output is divided into its audio and digital data components. Thus, the audio component, having been time compressed, is processed by an FM-SCA expander 114 for audio output as indicated by block 116 (corresponding to the block 34 in FIG. 1).

The digital data component is applied to packet search logic 118 which identifies those messages destined to the address of the particular receiver 26 in which the station signal is being processed. The identified digital messages are then coupled to the FM-SCA data receiver 36 for message display, processing or other response." (Davis Col 7, lines 35-48)

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To further illustrate that the transmission and reception of Davis is not intended to process the same audio in both digital and analog, "[the present invention is operative where at least some frame time is dedicated to digital data. In the extreme case, an FM station may transmit no audio and no other analog FM-SCA and dedicate all of the frame time not used for control data to digital message data." (Davis Col 8, lines 42-46)

In stark contrast to Davis in which the sub-carrier signal (digital) and main carrier (analog) signal are wholly separate and distinct – the present invention processes the equivalent audio transmission in both analog and digital modes and the receiver processes both signals and can select whether to output the decoded analog FM output or the standard analog FM output FM.

Regarding the rejection of claims 7 and 8, the Applicant has amended claim 7 to include the aspects of objected claim 9, thereby traversing the rejection.

As Davis does not set forth each and every element as set forth in the amended claims, the rejection is traversed and allowance of all claims is respectfully requested.

#### **Claim Rejections – 35 USC § 103**

The Office has quoted the statute from 35 USC 103(a), which is referenced herein. The Office has rejected claim 3 as being unpatentable over Davis in view of Kroeger '227 (U.S. Pat. No. 6,430,227). Claim 4 is rejected as being unpatentable over Davis in view of Kroeger '317 (U.S. Pat. No. 6,178,317). Claim 6 is rejected as being unpatentable over Davis in view of Curtin (U.S. Pat. No. 6,925,489).

According to the MPEP §2143.01, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found in either the references themselves or in the

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knowledge generally available to one of ordinary skill in the art." A useful presentation for the proper standard for determining obviousness under 35 USC §103(a) can be illustrated as follows:

1. Determining the scope and contents of the prior art;
2. Ascertaining the differences between the prior art and the claims at issue;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or unobviousness.

Applicant has carefully considered the Office rejections and respectfully submits that the amended claims are distinguishable from the cited references for at least the reasons set forth herein.

Kroeger '227 describes a broadcasting system suited for In-Band-On-Channel (IBOC) Digital Audio Broadcasting (DAB). The Office acknowledges that Davis does not disclose having an analog source and uses Kroeger '227 to illustrate an analog source.

A notable distinction, visually illustrated in Kroeger Figure 7, is that the received signal (100) is processed in the receiver (98) and the "audio information is sent to a speaker 104 and additional data, if any, is provided to output 106, which may be fed to a display or other device that can further process the data." (Kroeger Col 8, lines 38-41)

This is distinguished from the amended claims in which the present invention automatically determines whether to output the audio signal from the standard analog FM signal or the digital decoded analog FM signal. There is no such description concerning a selection of the audio output or synchronization of the FM output signals as defined in the amended claims. Other distinctions are noted herein.

With respect to Kroeger '317, this patent describes a redundant radio broadcast scheme to allow the redundant signal to fill in any gaps in the primary transmission. The primary signal is separated from the redundant signal by a time delay – however these signals are not transmitted in different modes as in the present invention. There is no analog and digital transmission of the equivalent audio transmission – only a time delayed primary and redundant signal scheme.

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Furthermore, the Applicant wishes to remind the Office of the requirements for combining references. In particular, an improper combination of references will be found, when taken as a whole, there is no motivation or suggestion to combine the references to achieve the Applicant's claimed invention. There must be some objective reason to combine the teachings of the references to make the claimed invention.

The amended claims are distinguished from each of the cited references taken separately or in combination. For at least the reasons set forth herein, the Applicant believes that the present claims traverse the rejections allowance of all claims is respectfully requested.

#### *Telephone Interview*

Present Office policy places great emphasis on telephone interviews initiated by the examiner. For this reason, it is not even necessary for an attorney to request a telephone interview. However, Applicant would greatly appreciate the opportunity for a telephone interview and feels the call will be beneficial to advance prosecution of the application. MPEP§408.

Applicant believes the above amendments and remarks to be fully responsive to the Office Action, thereby placing this application in condition for allowance. No new matter is added. Applicant requests speedy reconsideration, and further requests that Examiner contact its attorney by telephone, facsimile, or email for quickest resolution, if there are any remaining issues.

Respectfully submitted,



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